

In accordance with 37 CFR §1.121 a marked up version of the above-amended paragraph(s) illustrating the changes introduced by the forgoing amendment(s) are provided in Appendix C.

REMARKS

This preliminary amendment is provided in Response to the Notice to File Missing Parts of Nonprovisional Application. Applicant(s) request entry of this amendment in adherence with 37 C.F.R. §§1.821 to 1.825. This amendment is accompanied by a floppy disk containing the sequences (SEQ ID NOs:1-11) in computer readable form, and a paper copy of the sequence information that has been printed from the floppy disk.

The information contained in the computer readable form (floppy disk) was prepared through the use of the software program "PatentIn" and is identical to that of the paper copy.

This amendment contains no new matter. The amendments to the specification and/or claims are to provide a formal sequence listing and/or to provide appropriate cross-references to SEQ ID Numbers in accordance with 37 C.F.R. §§1.821 to 1.825. The sequence information provided herein finds support in the specification as filed.

If a telephone conference would expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (510) 337-7871.

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Respectfully submitted,



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APPENDIX A

VERSION WITH MARKINGS TO SHOW CHANGES MADE IN 09/915,181 WITH ENTRY
OF THIS AMENDMENT

In the specification:

Paragraph 44 on page 14:

[0044] Figure 1 shows a VGLUT3 nucleic acid (SEQ ID NO:1), its complement (SEQ ID NO:2), and a VGLUT3 amino acid sequence (SEQ ID NO:3).

Paragraph 49 on pages 15 and 16:

[0049] Figures 6A and **Error! Reference source not found.**B show that DNPI belongs to a subfamily of type I phosphate transporters. Figure **Error! Reference source not found.**A shows that the predicted amino acid sequence of rat DNPI/VGLUT2 (SEQ ID NO:4) exhibits more similarity to rat VGLUT1 (SEQ ID NO:5) and *C. elegans* EAT-4 (SEQ ID NO:6) than to other type I phosphate transporters including human sialin (SEQ ID NO:7) and rat NaPi-1 (SEQ ID NO:8). The sequences were aligned using PILEUP (GCG). Black boxes indicate identical residues and gray boxes conservative substitutions. The solid lines above rat DNPI/VGLUT2 reflect the location of putative transmembrane domains (predicted by Kyte-Doolittle analysis of hydropathy). The dashed lines indicate hydrophobic segments too short to span the membrane that might form re-entrant loops. The asterisk indicates a putative glycosylation site. Figure **Error! Reference source not found.**B shows a dendrogram showing the amino acid sequence relationship between rat VGLUT2 and rat VGLUT1, *C. elegans* EAT4, human sialin and rabbit NaPi-1. The percentage shown in parentheses indicates the percent identity to rat VGLUT2.

Paragraph 185 on page 54:

[0185] The sequence requirement for the hairpin ribozyme is any RNA sequence consisting of NNNBN*GUCNNNNNN (where N*G is the cleavage site, where B is any of G, C, or U, and where N is any of G, U, C, or A) (SEQ ID NO:[____]9). Suitable VGLUT of recognition or target

sequences for hairpin ribozymes can be readily determined from the VGLUT sequence(s) identified herein.--

Delete paragraph 275 on page 86 and insert the following:

--[0275] The pGEX bacterial expression system (Pharmacia Biotech) was used to produce a glutathione S-transferase (GST) fusion protein containing the carboxy-terminal 64 amino acids (residues 519-582) of rat DNPI. The 3' end of the protein-coding region (nucleotides 2017-2220) was amplified from the rat DNPI cDNA by PCR using primers (5'-GGG AAT TCA TTC ATG AAG ATG AAC TGG ATG AA-3', SEQ ID NO:[1]10) and 5'-GGC TCG AGC TAG CTT CGT TAT GAA TAA TCA TC-3', SEQ ID NO:[2]11) and subcloned into pGEX-5X-1 at *Eco*RI and *Xho*I sites. The fusion protein was produced in the XL1-Blue strain of *E. coli*, purified over glutathione-sepharose and used to generate polyclonal rabbit antisera (Quality Controlled Biochemicals).--